MarCum TECHNOLOGIES

LX5

Multicolor Sonar Unit

User Manual

www.marcumtech.com

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Introduction

Thank you for purchasing the MarCum LX-5 multicolor sonar unit. The LX-5 incorporates the latest in sonar technology, featuring a patented flexible zoom that can be set anywhere between surface and bottom, a patent pending TrueColor display, 2500 watts of peak-to-peak power, patented signal interference rejection, Superfine Line Technology, and target separation down to 3/4 inch. Our goal is to set the industry standard for performance while maintaining the highest level of reliability. Please read this manual carefully before using your LX-5 system. Only by reading this manual can you realize the maximum benefit from your purchase — enjoy your new LX-5 sonar system!

General Description

The LX-5 multi-color sonar unit utilizes three different colors within its display to differentiate between densities of objects. Each of the three colors is represented by a separate LED on the display board. This new patent pending TrueColor display eliminates the blending of two colors to make a third and results in an ultra-crisp display that greatly enhances target identification. The Red light displays the strongest of return signals, often signifying a hard bottom or a larger fish that is often in the center of the transmit signal (cone). The Green light displays the next in the line of weaker-signal returns, often signifying a softer bottom or smaller fish in the middle of the transmit signal or a larger fish on the outside of the transmit signal. The weakest return is displayed by a Yellow light and often signifies weeds, small bait-fish, medium-sized fish on the outside of the transmit signal, or a very soft bottom. The use of different colors in defining return signals is meant to be informative in indicating the size of fish, type of bottom or location of weeds. The interpretation of these signals improves with experience and use in the field.

The LX-5 offers 12 levels of signal Interference Rejection (IR) from nearby competing units. This is most prevalent in ice-fishing applications where anglers utilizing sonar are often grouped together within small areas.

The LX-5 offers a Zoom feature that allows the user to hone in on a specific section of water within the water column thereby improving target separation from 2.15 inches down to 3/4 inch. The Zoom window (area of water being selected) can be set at either 5 or 10 feet on the 20- and 40-foot depth range, 10 or 20 feet on the 80-foot depth range, or 20- or 40-feet on the 160-foot depth range.

This allows for a larger Zoom window to be viewed on the deeper range settings. The Zoom window can be moved anywhere between the surface and the bottom by use of the UP / DN arrow keys located on the keypad.

The LX-5 can be matched with a twenty-degree (cone angle) transducer for open water use. The puck-style transducer is often used for mounting on the bottom of trolling motors or for in-hull applications. The high-speed transducer is intended for outside the hull mounting on the transom of a boat and is designed for picking up depth or return signals at higher speeds.

The dual beam (eight or twenty degree) ice transducer is a weighted, self-aligning transducer used for ice-fishing applications. The LX-5 runs off of any 12-volt power source and included is a power cord for wiring directly to the battery or into an electrical panel. The unit is mounted onto a factory-supplied gimbal bracket that can be in turn attached to a rotating swivel base (not supplied) or mounted directly to a boat deck, drivers console, portable electronics shuttle, or located in an electronics locker. The LX-5 is designed to withstand moisture from rain, sleet or snow. The unit was tested under the harshest conditions to ensure that you will receive the kind of dependability that you deserve.

The LX-5 comes standard with an integrated dual beam transducer. When the unit is first turned on it will be operating with a twenty degree transmit cone. When conditions dictate that a narrower transmit cone is desired, simply depress the NBT key located on the keypad and a RED LED will light indicating that the unit is now operating with an eight degree transmit cone.

To continue MarCum's desire to refine target separation and improve the precision of our products, we've introduced a new feature called Super-Fine Line. This feature changes the width of the transmit pulse which intern narrows the display segments, and improves the target separation to 3/4 of an inch. This is accomplished while utilizing the full screen display, eliminating the need for the split screen Zoom feature to improve your target separation. Although Zoom allows you to hone in and concentrate on just the fish and your presentation, SuperFine Line allows you to improve your separation while viewing the entire water column.

Ice System Set-Up

Your LX-5 comes virtually ready to fish. All you need to do is hook up the positive lead from the LX-5 power cord to the battery. Your LX5 is delivered with a charged battery, so you can take it fishing right away. Inside the LX-5 deluxe softcase is an electronics shuttle that has recessed compartments for the battery and the dual beam transducer. Take the transducer out of the recessed holder and rotate the adjustable ice arm out from inside the shuttle. The adjustable ice arm allows for maximum flexibility in positioning the LX-5 around the ice hole.

The transducer is weighted and will self-align when suspended from the adjustable ice arm. We recommend setting your stopper to have the transducer down the least amount possible. The LX5 puts out enough power that in most cases it is not necessary to have your transducer down more than a few inches below the water line to get a good reading. When the ice thickness is over two feet, it may be necessary to have your transducer set farther down. Remember--the less transducer cable you have out, the easier it is to pull it out of the water when bringing in a fish, or to move to a new location.

Operation

The LX-5 utilizes a combination of control knobs (Gain & Range) and keypad (IR, ZM, UP & DN, NBT, SFL) to change or activate various system functions. The keypad has an audible beep when the key is depressed to indicate that a system function has been activated. The following is an explanation of the various system functions.

Range Select - The Range select knob is used for turning the LX-5 On or Off, as well as choosing the correct depth range. The LX-5 offers four depth ranges to choose from that can be selected by rotating the knob clockwise. The depth ranges are 20, 40, 80, or 160 feet. The depth-range setting is determined by turning the unit "on" and turning the Gain knob looking for a solid return (band of light) indicating bottom on the display. If no return is present, then select the 40-, 80-, or 160-foot range until a bottom reading is displayed on the screen.

Gain Knob - The Gain knob controls the amount of sensitivity required by the unit to pick up objects like bottom, weeds, fish, smaller bait-fish, or small lures and jigs. The lower the number, the less sensitivity, conversely higher numbers mean more sensitivity. However, too much Gain (sensitivity) will result in too much information being displayed, and it becomes difficult to interpret the return signals. The best Gain setting is achieved by turning up your Gain from 0 until you receive a clear and steady bottom reading. If you're looking for your lure or bait, turn up the gain until you just begin to display your bait without it fading or flickering on the screen. The lower the sensitivity, the narrower the display segments, the easier it is to distinguish targets. We cannot emphasize this strongly enough. Too much Gain will only clutter the display with unnecessary information, making it more difficult to interpret the return signals. Keeping the Gain at minimum levels will actually provide you with the most accurate and precise information.

Interference Rejection - The Signal Interference Rejection system is designed to knock out competing return signals from other sonar units being used within close proximity. When other sonar units are causing interference to the display of the LX-5, activate the IR feature by depressing the IR key located on the face of the LX-5.

There are 12 levels of interference rejection that can be used to knock out competing signals. Press the IR key to activate, each consecutive actuation (depressing the key) will change the level of signal rejection. Each actuation will result in an audible beep informing you that a system command has been recognized. The correct level of IR will be achieved when the display is clear of display clutter. In some extreme cases, clutter will be greatly reduced but not totally eliminated.

Zoom - The Zoom function can be activated by depressing the ZM key. An audible beep will indicate that the Zoom function has been activated. The Zoom function divides the circular display screen in half. The right half of the display, (12 to 6 o'clock on the dial) will become your entire surface-to-bottom display. This will be indicated by a RED band of light at the top (zero) and a

RED band of light at the bottom (or 6 o'clock). If you are on the 20-foot depth range, the 12 o'clock position will be the surface of the water and 6 o'clock will be the bottom of your chosen depth range (20 feet on the 20-foot scale).

When utilizing the Zoom function, you will be reading your depth markings by viewing the inner circle (YELLOW numeric) located in the center of the LX-5 display dial. If you select the 40-foot scale, the same applies, except you multiply the YELLOW numeric markings by 2. The 80-foot range setting is a multiple of 4, and the 160-foot range setting is a multiple of 8.

Once you use the LX-5 a few times, your brain will automatically make the adjustment without any noticeable thought process. The backside of the display (6 o'clock moving clockwise to 12 o'clock) is the other half of your split-screen display. This half reads what you see on the right half, but in a magnified version. The normal view (right half) will show targets that are 2.15 inches apart (on the 20-foot depth range) but the Zoom view (left half) will show targets 3/4 inch apart. This will greatly enhance the precision of your presentation and show that multiple smaller targets might exist on the left half (Zoom) where it appears that one larger target is showing on the right (normal display). You can determine the size of your Zoom window (the width or amount of water viewed within the water column) by depressing the ZM key. If you depress the key once (turning Zoom ON), the window is 5 feet on the 20- or 40-foot range setting, if you press the ZM key again the Zoom window is expanded to 10 feet. Depress the ZM key again and the Zoom feature is turned OFF. When in the 80-foot range, pressing the ZM will give you a 10-foot viewing window, depress ZM again and it will become a 20-foot Zoom window. The 160-foot range has a 20-foot window, or it becomes 40-foot when ZM is depressed again.

Up & Down Keys - The UP/DN keys are used to move your Zoom window up or down in the water column. When you first depress the DN key, two YELLOW blinking lights will appear on the LX-5 display. The YELLOW blinking LEDs will be 5 feet apart between the 1-foot and 6-foot markings on the YELLOW scale located on the inner circle of the display dial. If you remove your finger from the keypad, the blinking YELLOW indicator lights will disappear after 2 seconds.

If you hold the DN key, the two blinking lights will remain on and move down the display (with audible beeping) until you locate them in the area that you desire. To increase the Zoom window to 10 feet, depress the ZM key (audible beep) and then depress the DN key, then the blinking YELLOW lights will appear 10 feet apart on the inner YELLOW numeric scale in the center of the LX-5 display. You can then locate the Zoom window at the desired viewing depth. Even though your YELLOW indicator lights are no longer blinking, your Zoom window is still set and in position. To check the location, press either the UP key or the DN key to activate the visual blinking lights to reacquaint yourself with the location. The blinking YELLOW lights will assist you in setting the location and act as a visual reference.

The benefit to the MarCum design is that it allows you to move your Zoom window between surface and bottom, and in turn, zoom in on any 5- or 10-foot section of water (on the 20-foot depth range). There are many species of fish that are not bottom huggers that we all enjoy pursuing. Crappies, sunfish, perch, tullibees, whitefish, trout (rainbow, brook, brown, etc.) as well as lake trout are not bottom huggers and often suspend anywhere within the water column. The MarCum design allows you to have two sizes of Zoom window per depth range and position the Zoom where you need it for the fish that you enjoy pursuing.

Dual Beam Transducer - The LX-5 comes standard with a dual beam transducer that allows the user to choose between a 20- or 8-degree transmit cone (angle). When the LX-5 is first turned on, it will be transmitting utilizing the 20-degree element. To change the cone angle to a narrower eight degree transmit, simply depress the NBT key located on the keypad and a RED LED will light indicating the LX-5 is now transmitting using the 8-degree element. This option allows the user maximum flexibility by narrowing the “dead zone” associated with fishing sharp breaks, reducing or eliminating interference from nearby sonar in hard bottom situations, eliminating viewing other lures or baits from nearby anglers, or narrowing the cone in deeper waters to view fish in an area of closer proximity to your bait.

Cone Angle Coverage - The cone angle of the LX-5 dual-beam ice transducer is either 8 or 20 degree, and the open water high speed and puck transducers are 20 degrees. The approximate area of coverage with a 20 degree transducer is determined by dividing the depth by 3 (in 30 feet of water your area of coverage is approximately 10’). The approximate area of coverage with an 8 degree transducer is determined by dividing the depth by 7 (in 30 feet of water your area of coverage is approximately 4.25’).

SuperFine Line - This feature allows the user to improve target separation to 3/4 on an inch and still utilize the full screen display. When the SFL key is depressed, a RED LED will light to indicate that the SFL feature has been activated. Utilizing SuperFine Line changes the transmit pulse, narrows the display segments, and improves the target separation from 2.15 inch to 3/4 of an inch. This is achieved without having to activate the Zoom feature thereby allowing you to view the entire water column from surface to bottom.

Simulator - The LX-5 comes equipped with a built-in simulator. To activate the simulator, depress and hold the Zoom key while turning on the unit. The unit will display a simulated bottom reading (RED & GREEN), a fish just off the bottom (GREEN) and a moving (jigging) lure indicated by a YELLOW light.

The simulated fish (GREEN) will move off the bottom and change to RED as it approaches the lure. This indicates that the fish was not in the center of the transmit cone when near the bottom but as it approaches the lure will turn RED as it enters the center of the cone. The unit will beep as the simulated fish hits the lure and is caught. The unit will then re-start the programmed simulation and the process will repeat itself indefinitely.

Battery Charging

Your Marcum system comes with a 3-stage battery charger. This style of charger has proven to be the most effective and easiest to use of all charging systems available. While the rate of charge is low, a completely discharged battery can be brought back to a full charge in as little as 12 hours. Because this is a 3-stage charger, there is no danger of overcharging your battery. Therefore, it is recommended that you charge your battery overnight after each use, and once every few months during periods of non-use.

A 3-Stage charger works like this—

Stage 1 (Bulk Stage): Constant current charging at a high voltage level at maximum amperage to minimize charge time.

Stage 2 (Absorption Stage): Current tapers off for final 10% of charge.

Stage 3 (Maintenance Stage): Lower voltage mode to prevent electrolyte loss, keeping your battery at full charge indefinitely.

Some common sense safety tips:

For safety reasons, it is recommended that you place your system on a flat, hard surface like cement or tile when charging it, away from any flammable materials. Be sure to disconnect the charger from the wall when not in use, and avoid leaving your battery hooked up to the charger for extended periods of time.

To charge your battery:

Your battery has a wiring harness attached to it that has “piggyback” terminals on it, enabling you to keep the power cord from the LX-5 attached to the battery at all times, as well as having the wiring harness with receptacle for your charger attached at all times. To charge, simply couple the end of the charger with the end of the wiring harness and once connected, plug the transformer end of the charger into a 110 volt AC wall outlet. You will see the red LED light appear at this time. When your battery is fully charged, the green LED comes on. At this time, you can disconnect the charger from the battery and wall outlet. However, no harm will come to your battery if you leave it attached to the charger.

If you need to remove the battery, unplug the two battery terminals from the battery. Remove the Velcro strap that is holding the battery in place and lift the battery out. To replace the battery, place a new battery of similar specifications into the battery compartment and secure it with the Velcro strap and re-connect the positive and negative terminals.

Signal Interpretation

Hard-bottom readings (rock or gravel) will be displayed by a wide band of RED light indicating a strong return signal. Conversely, a soft bottom (mud or silt) will return a weaker signal and will result in a narrower RED band or possibly even a combined RED and GREEN band. A soft bottom with weed growth will often appear as a narrow RED or GREEN band combined with both solid and broken Yellow segments indicating weeds. Any fish in the weeds may show as RED or GREEN depending on fish size and relationship within the transmit beam (in the middle or on the outside of the transmit signal).

Reading Bottom - In interpreting depth, always read the leading edge (shallowest side) of the signal return. If you have a strong signal return (wide band of RED light) and it starts at 13 feet and ends at 16 feet, the correct depth is 13 feet or the shallowest leading edge of the return signal. Anything beyond the shallowest leading edge indicates the strength of the return signal.

Reading Fish - Fish will generally appear as separate targets from the bottom. A fish target can be displayed as RED, YELLOW, or GREEN, depending on the size of the fish and the location within the transmit beam. Larger fish located in the center of the beam (cone) can appear RED and will be displayed as a wider band on the display. Smaller fish or fish on the outside of the cone may appear green or even yellow. Fish moving through the transmit beam may change color as the return signal strengthens or weakens reflecting their location.

Fish that are right on the bottom can appear as part of the bottom. The best indication of a fish sitting right on the bottom is that the leading edge of the bottom return signal is either GREEN or possibly a dithering or flickering RED segment. It is important that the **GAIN** or sensitivity be kept to a minimum when displaying a strong bottom return. Too much GAIN will flood out the ability to differentiate targets and clutter the display.

Reading Lures or Bait - The LX-5 will pick up and display small objects like lures or bait. When tuning the unit to display your lure or bait, lower the object to the desired depth and turn up the **GAIN** until you see the lure or bait on the display. It is important that the **GAIN** be set so it displays the lure or bait as you raise or lower it.

NOTE: Too much **GAIN** will cause clutter and may make it difficult to distinguish other targets like fish near the bottom. When tuning the unit to display lures or bait, make sure that the objects are in the center of the hole and therefore in the center of the transmit beam. If there's water current (some lakes have underwater current or movement) and the lure doesn't weigh much, it may move to the outer edge of the signal or out of the transmit beam altogether. This will make it difficult or impossible to pick it up on the display.

Dead Zone - All sonar units will have a dead zone in certain circumstances. This occurs on sharp drop-offs where the transmit beam (cone) hits the shallower edge of the drop-off and returns before the deeper edge returns. This in effect creates an undisplayed area between the shallower and deeper water within the transmit beam. The 8 degree transmit option on the LX-5 will greatly reduce this effect.

User Tips

Reading Through Ice - The LX-5 will provide accurate information reading through ice providing the ice is reasonably clear. To check the depth through the ice, wet the ice with about a cup of water to improve the coupling of the transducer to the ice. Drilling into the ice 1-2" before taking a reading may be necessary if the surface of the ice is very rough, or if the ice is filled with air bubbles. Depths and even the presence of weeds and fish can easily be determined without drilling holes, therefore greatly reducing time and energy in locating your fishing spot.

Fine Tuning Gain Control - To adjust gain properly, lower your lure or bait to within a foot of the bottom. Turn the Gain up or down until the lure or bait shows as a steady Yellow light. You should be able to raise or lower the lure in a jigging fashion without losing the signal. If the Gain (or sensitivity) is kept to a minimum, you should be able to separate targets down to 2.15 inches in a normal operating mode or ¾ inch in Zoom or SuperFine with the 20-foot scale. You may need to fine tune the gain each time you move locations, depending on the depth and bottom composition.

Signal Interpretation - Sound waves emitted by the LX-5 bounce off targets and return with the strength of the targets' density. Denser targets return with a stronger signal, displayed as RED. Less-dense objects (small fish) return a medium-strength signal, displayed as GREEN. The least dense objects (weeds, bait-fish, lure) return a weak signal, displayed as YELLOW. Objects on the edge of the sound cone may appear as YELLOW. A fish moving through the cone may appear first as YELLOW, then GREEN, then RED, depending on its size and how close to the center of the cone it moves.

Using the Ice Transducer - When used in conjunction with the retractable pivoting transducer arm and rubber stopper, the LX-5's transducer will automatically level itself in your ice hole. To begin operation, take the transducer out of the recessed holder, and rotate the adjustable ice arm out from inside the shuttle. Extend transducer arm, (the cable should already be threaded through it with stopper in place) and deploy the transducer into the water. We recommend setting your stopper to have the transducer down the least amount possible. The LX-5 puts out enough power that in most cases it is not necessary to have your transducer down more than a few inches below the water line to get a good reading. When the ice thickness is over two feet, it may be necessary to have your transducer set farther down. Remember--the less transducer cable you have out, the easier it is to pull it out of the water when bringing in a fish, or to move to a new location.

Open Water Set-Up

The LX-5 is an excellent sonar unit for open-water use. To convert the LX-5 from an ice system to an open water unit, remove the LX-5 powerhead, gimbal bracket and power cord from the softcase. The gimbal bracket can be mounted on any flat surface. The unit should be mounted in a location that is free from other electrical apparatus to eliminate interference. If interference is observed, reposition the unit until optimum performance is obtained. Your boat's 12-volt DC electrical system can be used to power the unit. A power buss can be used, but interference may result. Interference is recognized as random flashes around the dial. Lowest noise will be obtained by direct connection to the battery.

The LX-5 is protected from accidental polarity reversals. No damage will result from an incorrect battery hook-up. The ice-fishing transducer supplied with the Ice System is not designed for open-water use. There are two transducer choices for use in open water. The high-speed transducer is designed for transom mounting (outside the hull) and reads depth while the boat is on plane. The puck-style transducer is most often mounted on the bottom of a trolling motor or epoxied into the hull of a fiberglass boat.

High-Speed Transducer Installation

High-Speed transducers are designed to be mounted on the transom of a boat. If properly installed, you will be able to read depth, weeds, and fish while the boat is on plane. Transducer mounting location is critical for optimum performance of the LX-5 sonar unit. The mounting location should be free of any white water or turbulence resulting from rivets, ribs or hull strakes. It is preferable to mount the transducer at least 18 inches from the centerline of the boat to avoid turbulent water resulting from the outboard motor. The transducer is wedge-shaped and should be mounted with the leading edge mounted against the transom. The leading edge of the transducer should be mounted flush with bottom of the boat. This can be best achieved by using a flat object like a ruler and holding it flat along the bottom of the boat and matching the bottom of the transducer to the bottom of the boat.

Attach the mounting hardware to the high-speed transducer as shown in the instructions included with the transducer. Hold the transducer, with attached mounting hardware, to the transom of the boat (flush to the bottom) and mark the center of the holes on the transom. Drill the appropriate-size holes and attach the transducer to the transom. Tilt the rear of the transducer between 2 and 5 degrees below the transom to ensure solid contact with the water when the boat is on plane. It may be helpful to use a small amount of marine silicone along the leading edge of the transducer filling in any gap between the transducer and hull. This will help eliminate any white water or air bubbles, which can cause random interference on the sonar display.

Use caution in applying silicone to ensure that it only comes in contact with the leading edge of transducer, and does not smear across the face of transducer resulting in reduced sensitivity. More-detailed installation instructions are included with the high-speed transducer and mounting hardware.

Puck Transducer Installation

Puck-style transducers can be mounted on the bottom of a trolling motor, epoxied in the hull of a fiberglass boat, or mounted to a suction cup for portable use. Mounting to a trolling motor is achieved with the use of a large, adjustable stainless steel hose clamp available at most hardware or automotive stores. Slots are included in the puck transducer for passing the clamp through and then around the motor. Align the transducer so that it is perfectly centered from right to left on the bottom of the motor. If the transducer is tilted or angled, you won't receive a signal on your sonar display. Do not mount the transducer next to the propeller. Turbulence from the propeller may cause disruption in the sonar display. In-hull mounting is designed for achieving high-speed sonar readings in fiberglass boats. For the best readings, the transducer must be mounted in the layer of fiberglass that is in direct contact with the water. This is best achieved by mounting the transducer in the area surrounding the bilge pump in the transom area of the boat. Some boats have false bottoms or floors. Mounting the transducer in a location not in direct contact with the water will result in dead air space and no sonar reading. Once the correct area is located, the transducer is installed using a good grade of marine epoxy. For more-detailed installation information, refer to the directions included with the puck transducer.

Product Performance Specifications

Battery Draw - The LX-5 has a current draw between 350 and 400mA per hour. To extend the battery life, recharge the battery after every use.

Output Power	2500 watts peak to peak
Depth Ranges	20, 40, 80, & 160 feet
Transmit Frequency	200 KHz
Current Draw	350 mA
Operating Voltage	10.5 to 15 volts (12-volt DC)
Display Colors	Red, Yellow, Green
Transducer Cone Angle	Dual Beam (8 & 20 degrees) Pack and High Speed for open water use – 20 degree.
Target Separation	2.15 inches (20-foot depth scale) 3/4 inch in Zoom and in SuperFine Line Mode (20 foot depth scale)

Two-Year Warranty

Versa Electronics warrants this product to be free from defects in materials and workmanship for two years from the date of purchase. This warranty applies to customers who properly fill out and return the warranty card included with this manual. Failure to complete and return the warranty card voids the warranty. Versa Electronics will, at its sole discretion and without charging the customer, repair or replace any components that fail in normal use. Failures due to abuse, misuse, or unauthorized alteration, modification or repair are not covered. The battery is not covered by the warranty. The warranty is valid only for the original owner who purchases the unit from an authorized dealer. Products purchased from on-line auction sites are not considered under warranty.

How to Obtain Service

We want our products to provide you with a pleasant on-the-water experience. That means maximum customer satisfaction. If you have a problem with your unit please contact Versa Electronics toll free number at **888-778-1208** for a Return Authorization Number (RA#) or e-mail us at **service@versae.com**. No service returns will be accepted without this return authorization number, which must be clearly marked on the outside of the package. Versa Electronics retains the exclusive right to repair or replace the unit at its discretion.

Versa Electronics
3943 Quebec Avenue N.
Minneapolis, MN 55427

RA#_____

Note: The RA number must be clearly marked on the outside of the package

The customer is responsible for shipping costs associated with returning the unit to Versa Electronics Versa Electronics will pay for shipping the repaired unit back to the customer while it is still under warranty. All out of warranty services will be charged a fee for service and shipping which must be paid in advance. After obtaining a Return Authorization number, the unit should be securely packed and shipped “pre-paid freight” and insured to Versa Electronics. It is the consumers’ full responsibility to track their products sent out in the mail or other forms of delivery service. Versa Electronics will not be liable for lost packages sent out in the mail. Unless specified otherwise, do not include batteries or other accessories when returning the product for repair. Versa Electronics will not be responsible for lost or damaged accessories. Please allow a minimum of 10 business days to complete your repair.

ACCESSORIES

Soft Pack
Shuttle
Transducer Arm
Transducer
12 v 9 amp Battery
Power Cord
Battery Charger
Snowshield
Open water transducers
  Puck
  Hi-speed

Replacements for these items can be ordered off our website, **marcumtech.com** or by calling the toll-free number **888-778-1208.**

OTHER GREAT PRODUCTS FROM VERSA ELECTRONICS

LX7

The LX-7 Digital Sonar takes DNA from other fine Marcum sonars –you might say it was "bred" for excellence. Because the LX-7 is digital, we can pack it full of more features than have ever been found in an ice sonar before. With an 8" customizable dashboard display, superior target separation, 12-level interference rejection, dual-beam transducer, expandable zoom, and much, much more, the LX7 is the perfect combination of macro features and micro precision.

Showdown Troller

The new Showdown Troller Digital Fish Finder is a palm-sized sonar device with full size performance. For use in either ice-fishing or open water situations…quickly "troll" from hole to hole while ice-fishing or shoot through your canoe or kayak in order to find fish and the correct depth. As a scouting tool it has ne equal; the ultimate in portability is matched to ShowDown's proven Crystal-Quick® vertical display. The sonar instantly locks on to bottom, and clearly displays the location of fish and your lure, anywhere in the water column.

VS825SD

The VS825sd offers several technologies that are the first of their kind, making this system the most technologically advanced underwater viewing system available.

Using new technology such as an 8" Solar Intelligent- H2D display will deliver the sharpest, most vivid display, even in direct sunlight; Color Kill technology allows you to switch between a Color or Black and White image on demand, while maintaining crisp screen resolution; On-Screen displays of Camera Direction, Depth, Temp and Battery Voltage take all of the guess work out of your camera position so your new VS825sd can be used to hunt for underwater treasures, locate the "spot on the spot", observe fish in their natural habitat or learn how fish react to your lure or bait presentation. The applications are endless, and it's never been easier or more fun to view.

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